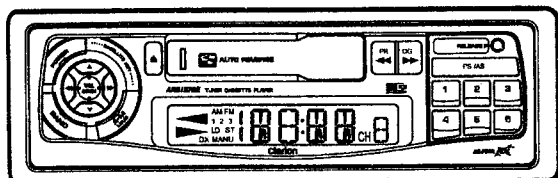


Service Manual



FM-MPX/MW/LW Radio Cassette Combination

Model **ARB1370E**

(PE-1537E-A/Illumination:Amber)

(PE-1537E-B/Illumination:Green)

■ SPECIFICATIONS

Radio section

Tuning system: PLL synthesizer tuner

Receiving frequencies:

FM: 87.5 to 108MHz (0.05MHz steps)

MW: 531 to 1,602kHz (9kHz steps)

LW: 153 to 279kHz (3kHz steps)

Weight: 1.3kg

※ Specifications and design are subject to change without notice for further improvement.

Tape deck section

Cassette type: Compact audio cassette

Playback system: Auto reversing 4-track, 2-channel stereo cassette tape playback (monaural playback also possible)

Frequency response: 30 to 15kHz ± 3 dB

Wow & flutter (WRMS):

0.1%

S/N ratio: 120 μ s (normal): 53dB

Tape types: Normal

General

Max. power output: 4 \times 30W

Effective power output (1% THD):
4 \times 14W

Power supply voltage:

DC 14V (10.8 to 15.6V allowable)

Auto antenna rated current:

0.5A or less

Dimensions (mm): 178(W) \times 50(H) \times 152(D)

■ COMPONENTS

PE-1537E-A/PE-1537E-B

Main unit		1
Mounting bracket	300-9677-00	1
Parts bag		1
Hook plate	331-0488-00	2
Spacer	345-3653-01	1
Screw	716-0721-01	1

■ FEATURES

1. Electronic Quartz-locked PLL tuning
2. 24 presets (18FM, 6MW/LW)
3. Preset scan (PS)
4. Auto store (AS)
5. Double-gutter hard permalloy head
6. High power 4 \times 30W max.
7. Electronic controls (Volume/bass/treble/balance/fader)
8. Audio muting
9. Partially-detachable control panel

■ To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc., is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

6. Cautions in handling flexible PWB

Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

■ NOTES

1. For VW and Audi vehicles, change the position of fuse installation as shown on the diagram. (Fig.1)

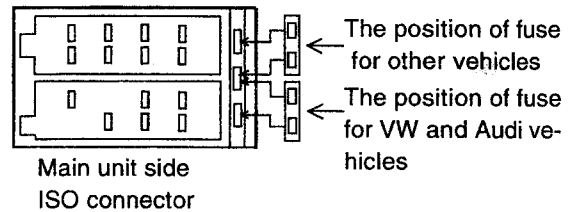


Fig.1

2. Short-circuiting the power antenna terminal or using a power antenna with a current exceeding the rated current can damage internal circuits. Always use with the rated current.
3. The DCP can easily be damaged by shocks. After removing it, be careful not to drop it or subject it to strong shocks.
4. When the release button is pressed and the DCP is unlocked, the car's vibration may cause it to fall.

EXPLANATION OF IC

LC72323A-9281 052-1909-00

System Controller

Outward Form

80 pins, plastic QFP

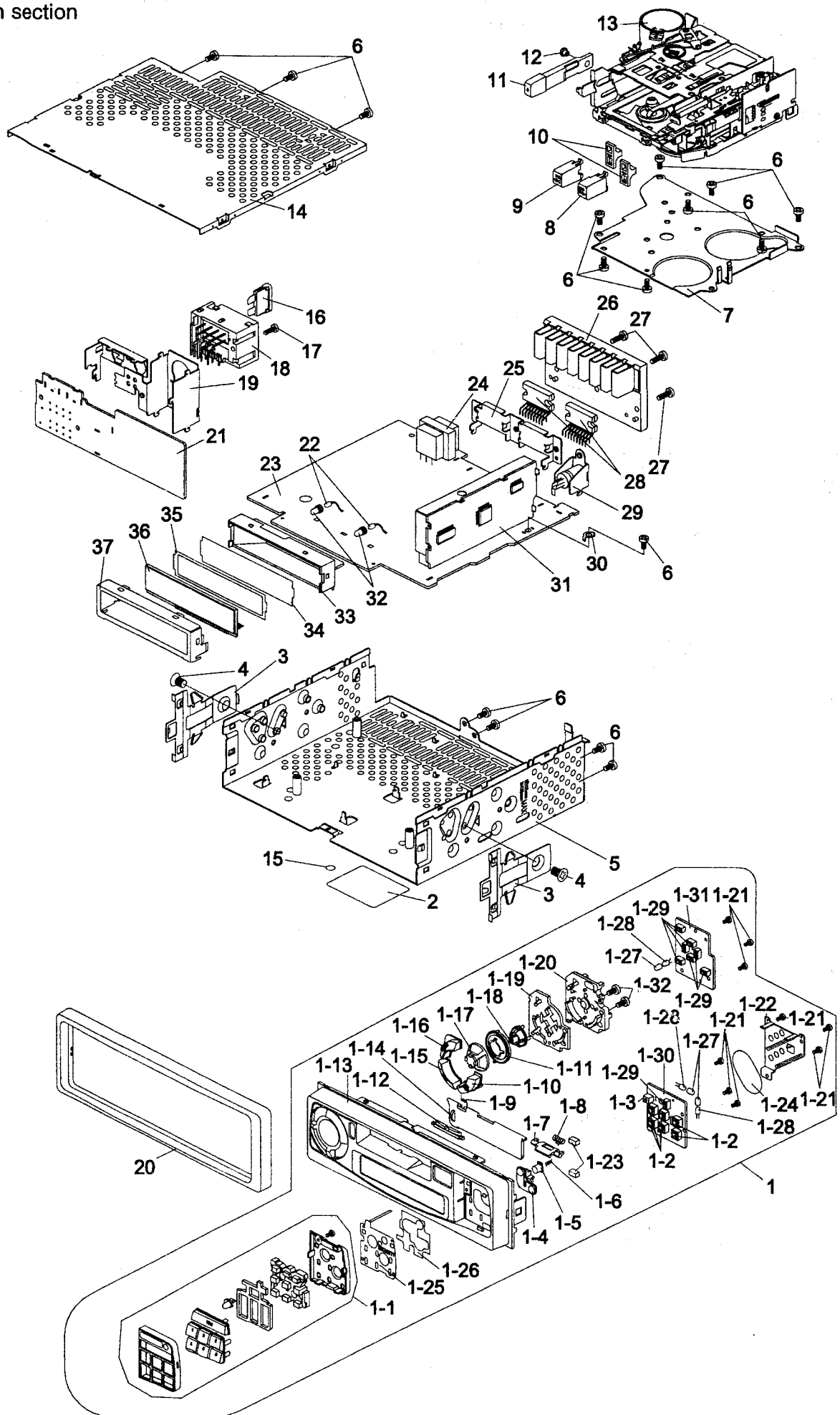
Terminal Description

No.	Symbol	I/O	Function
1	X' TAL IN	I	Connects X-TAL 4.5 MHZ
2	N.C.	-	N.C. (OPEN)
3	FM ST IND	I	Inputs Low in FM
4	AM SD	I	Detects AM signal
5	FM SD	I	Detects FM signal
6	SEL 3	I	N.C. (GND)
7	FM +B	O	Outputs Low in FM +B
8	AM +B	O	Outputs Low in AM +B
9	A MUTE	O	Outputs Low in AUDIO MUTE ON
10	FM DX/LO	O	Outputs Hi in FM DX
11	N.C.	I	N.C. (GND)
12	TAPE	I	Inputs Low in TAPE mode
13	FOR/REV	I	Inputs Low in TAPE mode, FOR. Inputs Hi in TAPE mode, REV.
14	FF/REV	I	Inputs Low in TAPE mode, FF/REW
15	N.C.	O	Not in use
16	LW/MW	O	LW BAND="HI"
17	AM DX/LO	O	AM DX="LO"
18	N.C.	O	N.C. (OPEN)
19	E-DO	O	Outputs DATA for E-VOL
20	E-CLK	O	Outputs E-VOL for CLOCK
21	REM +5	O	Inputs Low when REM+ 5V is ON
22	IF REQ	O	Inputs Hi in RADIO SEEK
23	N.C.	O	N.C. (OPEN)
24	REM +B	O	Outputs Hi in REM +14V ON
25	N.C.	O	N.C. (OPEN)
26	N.C.	O	N.C. (OPEN)
27	KS 3	O	Key scan output
28	KS 2		
29	KS 1		
30	KS 0		
31	VDD	-	VDD 5V power supply
32	KI 3	I	Key scan input
33	KI 2		
34	KI 1		
35	KI 0		
36	N.C.	O	N.C. (OPEN)
37	N.C.	-	
38	LCD SEGMENT	O	Outputs LCD segment control
59			
63			
64	COM 2	O	Displays COM2 on LCD
65	COM 1	O	Displays COM1 on LCD
66	SEL 2	I	N.C. (GND)
67	HOLD	I	Inputs Hi in ACC ON
68	RES	I	Connects VDD
69	SEL 1	I	Setup terminal
70	FM IF IN	I	Inputs FM IF
71	AM IF IN	I	Inputs AM IF
72	SNS	I	Inputs RESET circuit
73	VDD	-	VDD 5V power supply
74	FM OSC	I	Inputs FM OSC

No.	Symbol	I/O	Function
75	AM OSC	I	Inputs AM OSC
76	VSS	-	Connects GND
77	EO 1	O	Outputs for phase modulator
78	EO 2	O	N.C. (OPEN)
79	TEST 1	I	N.C. (GND)
80	X' TAL OUT	I	Connects X-TAL 4.5 MHZ

EXPLODED VIEW · PARTS LIST

Main section

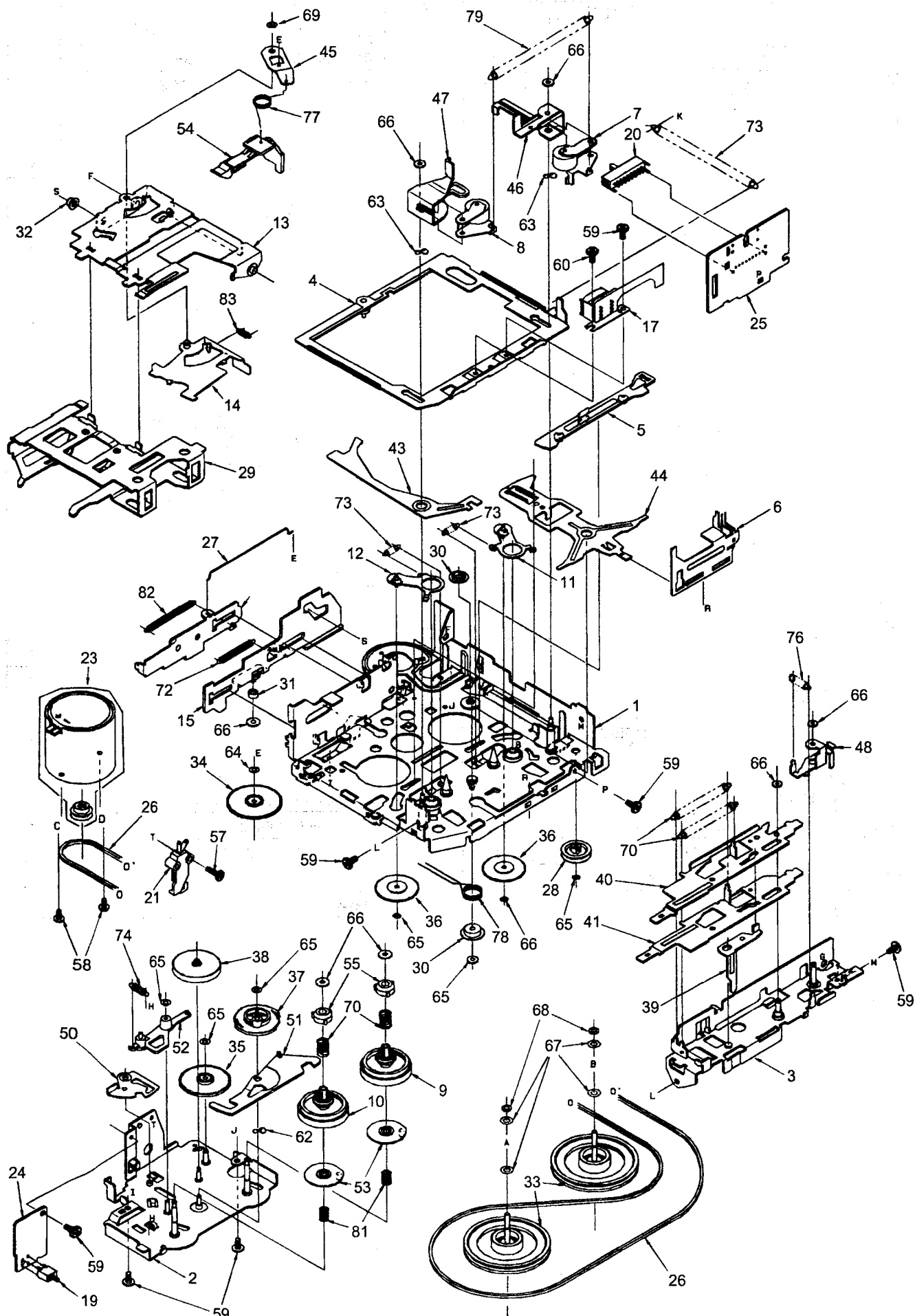


NO.	PART NO.	DESCRIPTION	Q'TY
1	940-1827A 940-1828A	ESCUTCHEON-ASSY(AMBER) ESCUTCHEON-ASSY(GRN)	1 1
1-1	940-1791A	DCP-ASSY	1
1-2	013-6002-50	SWITCH	6
1-3	013-7000-01	SWITCH	1
1-4	335-5358-00	ILLUMI PLATE	1
1-5	382-4472-00	BUTTON(P-OUT)	1
1-6	750-3221-00	SPRING(P-OUT)	1
1-7	335-5313-00	HOOK	1
1-8	750-3220-00	SPRING(P-HOOK)	1
1-9	750-3217-00	SPRING	1
1-10	382-4397-20	BUTTON(A-M)	1
1-11	335-5297-00	JOG PLATE	1
1-12	335-5290-00	ILLUMI PLATE	1
1-13	370-5647-00	ESCUTCHEON	1
1-14	320-0526-27	DUSTPROOF-CVR	1
1-15	382-4395-20	BUTTON(BAND)	1
1-16	382-4393-21	BUTTON(POWER)	1
1-17	380-5394-20	KNOB(VOL)	1
1-18	335-5298-00	JOG ARM	1
1-19	345-7818-00	SPONGE(L)	1
1-20	335-5307-00	ILLUMI PLATE(L)	1
1-21	716-0778-00	WAVE SCREW	9
1-22	331-2003-00	HOOK PLATE	1
1-23	345-7898-00	SPACER	2
1-24	347-5438-00	SHADE	1
1-25	331-2136-00	EARTH PLATE	1
1-26	347-5437-00	DOUBLF FACE	1
1-27	345-4441-58 345-2830-20	LAMP CAP(AMBER) LAMP CAP(GRN)	3 3
1-28	017-0410-00	PILOT LAMP	3
1-29	013-3812-11	SWITCH	8
1-30	039-0851-00	SWITCH P.W.B	1
1-31	039-0851-00	SWITCH P.W.B	1
1-32	716-0872-00	PAD SCREW	2
2	286-8681-00	SETPLATE	1

NO.	PART NO.	DESCRIPTION	Q'TY
3	750-3137-00	SPRING	2
4	714-5008-41	MACHINE SCREW	2
5	311-1697-02	LOWER CASE	1
6	714-3005-80	MACHINE SCREW	16
7	331-0604-00	MECHA BRKT	1
8	382-4464-00	BUTTON(FF)	1
9	382-4465-00	BUTTON(REW)	1
10	335-5300-00	SPACER(FF/REW)	2
11	382-4467-00	BUTTON(EJ)	1
12	716-1719-00	SCREW	1
13	930-0727-80	TAPE-MECHANISM(TOM-2)	1
14	310-1571-00	UPPER CASE	1
15	290-6495-01 290-6495-00	LABEL(AMBER) LABEL(GRN)	1 1
16	060-0057-56	AUTO-FUSE(10A)	1
17	714-2610-10	MACHINE SCREW	1
18	074-1115-11	OUTLET SOCKET	1
19	331-1856-20	CONNECT HOLDER	1
20	370-5656-01	OUTER-ESCUTCHEON	1
21	039-0841-00	CONNECT PWB	1
22	017-9001-01	PILOT-LAMP	2
23	039-0839-01	MAIN PWB	1
25	331-0613-00	IC-HOLDER	1
26	313-1616-00	HEAT SINK	1
27	714-3010-80	MACHINE SCREW	3
28	051-2009-00	IC(TDA8561Q)	2
29	092-9000-01	ANT-RECEPTACLE	1
30	331-0643-00	EARTH PLATE	1
31	880-2079C	FM/MW/LW TUNER	1
32	345-3436-64 345-3436-13	LAMP CAP(AMBER) LAMP CAP(GRN)	2 2
33	335-5310-00	LCD HOLDER	1
34	347-5368-00	FILM	1
35	347-5367-00	SHADE	1
36	379-1070-21	INDICATOR	1
37	331-2000-00	LCD COVER	1

■EXPLODED VIEW • PARTS LIST

Tape mechanism section:930-0727-80



NO.	PART NO.	DESCRIPTION	Q'TY
1	960-4421-00	DECK ASS'Y	1
2	960-4424-00	BOTTOM ASS'Y	1
3	960-4182-04	FRAME ASS'Y	1
4	960-4423-00	HEAD-P-ASS'Y	1
5	960-4186-02	FF-REW-P-ASS'Y	1
6	960-4427-00	HEAD-SW-ASS'Y	1
7	960-4188-03	ROLLER ASS'Y F	1
8	960-4189-03	ROLLER ASS'Y R	1
9	960-4190-09	REEL ASS'Y F	1
10	960-4191-09	REEL ASS'Y R	1
11	960-4192-02	IDLER ASS'Y F	1
12	960-4193-02	IDLER ASS'Y R	1
13	960-4422-00	GUIDE ARM ASS'Y	1
14	960-4141-04	OFF ARM ASS'Y	1
15	960-4425-00	EJECT P-ASS'Y	1
17	011-0313-15	HEAD	1
19	013-3906-00	SWITCH	1
20	013-3922-00	SWITCH	1
21	013-3924-00	SWITCH	1
23	SMA-141-100	DC MOTOR ASS'Y	1
24	039-0726-00	PWB	1
25	099-9669-00	PWB	1
26	602-0115-00	BELT	1
27	750-2860-01	ROD SPRING	1
28	604-0042-01	TENSION PULLEY	1
29	606-0100-05	PACK GUIDE	1
30	610-0334-01	HEAD ROLLER B	1
31	610-0363-00	EJECT P-ROLLER	1
32	610-0337-00	GUIDE A-ROLLER	1
33	611-0090-04	FLYWHEEL	2
34	613-0272-10	GEAR A	1
35	613-0273-02	GEAR B	1
36	613-0274-02	IDLER GEAR	2
37	613-0275-03	CHANGE GEAR	1
38	613-0277-02	CHECK GAER	1
39	630-2488-02	SELECT LEVER	1
40	630-2497-03	FF LEVER	1
41	630-2496-03	REW LEVER	1

NO.	PART NO.	DESCRIPTION	Q'TY
42	630-2445-01	EJECT LEVER	1
43	630-2499-01	CHANGE LEVER	1
44	630-2501-02	CHANGE PLATE	1
45	630-2419-02	SWING ARM	1
46	630-2505-02	FF-REW LINK	1
47	630-2506-05	RELEASE LINK	1
48	630-2507-04	LOCK LINK	1
50	630-2529-02	MUTE PLATE	1
51	631-1958-05	CHECK LINK	1
52	631-1959-01	CHANGE LINK	1
53	631-1961-03	CHECK PLATE	2
54	631-0658-01	PACK STOPPER	1
55	631-1967-00	SLIDE BUSH	2
57	714-2008-81	MACHINE SCREW	1
58	716-0484-02	SCREW	2
59	716-1471-00	S-TIGHT	7
60	716-1473-01	HEAD SCREW	1
62	745-0752-00	PLATE SPRING	1
63	745-0756-00	SPRING WASHER	2
64	746-0712-03	WASHER	1
65	746-0724-00	WASHER	6
66	746-0768-00	WASHER	8
67	746-0839-00	CAPSTAN WASHER	4
68	746-0869-00	WASHER	2
69	746-0622-01	WASHER	1
70	750-2564-01	SLIDE SPRING	2
71	750-2904-02	FF-REW SPRING	2
72	750-2858-01	EJECT P-SPRING	1
73	750-2906-00	IDLER SPRING	2
74	750-2907-03	CHANGE L-SPRING	1
75	750-2908-02	HEAD SPRING	1
76	750-2909-04	ROD SPRING	1
77	750-2861-01	SLOT-IN SPRING	1
78	750-2911-01	HOLDING SPRING	1
79	750-2912-01	PINCH SPRING	1
81	750-2919-03	CHECK SPRING-R	2
82	750-2857-02	EJECT L-SPRING	1
83	750-2859-00	OFF ARM SPRING	1

ELECTRICAL PARTS LIST

Note) Several different parts of the same reference number are alternative parts.

Main PWB

One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 101	176-1801-00	50V 18pF CH	C 615	178-2232-05	25V 0.022 μ F	Q 718	191-1243-00	2SB1243
C 102	178-1032-05	50V 0.01 μ F	C 616	042-9003-00	10V 100 μ F	R 101	117-2221-10	1/10W 2.2k Ω
C 103	178-1032-05	50V 0.01 μ F	C 617	184-1073-22	10V 100 μ F	R 102	111-6821-91	1/4WSS 6.8k Ω
C 104	042-9003-00	10V 100 μ F	C 618	171-2233-06	25V 0.022 μ F	R 103	117-1831-10	1/10W 18k Ω
C 105	178-3332-05	25V 0.033 μ F	C 701	180-2253-63	50V 2.2 μ F	R 104	117-5631-10	1/10W 56k Ω
C 106	178-3332-05	25V 0.033 μ F	C 702	180-1063-53	35V 10 μ F	R 105	111-3931-91	1/4WSS 39k Ω
C 107	178-1045-06	25V 0.1 μ F	C 703	184-4763-52	10V 47 μ F	R 106	117-2221-10	1/10W 2.2k Ω
C 108	178-4732-05	25V 0.047 μ F	C 704	184-2273-22	10V 220 μ F	R 107	111-1031-91	1/4WSS 10k Ω
C 109	178-1045-06	25V 0.1 μ F	C 705	178-1022-05	50V 1000pF	R 108	117-1031-10	1/10W 10k Ω
C 110	180-2243-63	50V 0.22 μ F	C 706	178-1022-05	50V 1000pF	R 109	117-2231-10	1/10W 22k Ω
C 111	042-9003-00	10V 100 μ F	C 708	178-1032-05	50V 0.01 μ F	R 201	117-2231-10	1/10W 22k Ω
C 112	178-2232-05	25V 0.022 μ F	C 709	042-9002-01	50V 3.3 μ F	R 202	117-2231-10	1/10W 22k Ω
C 113	042-9003-00	10V 100 μ F	C 710	042-9002-04	50V 1 μ F	R 203	117-1011-10	1/10W 100 Ω
C 114	178-1032-05	50V 0.01 μ F	C 711	178-1032-05	50V 0.01 μ F	R 204	117-1011-10	1/10W 100 Ω
C 115	178-1032-05	50V 0.01 μ F	C 712	178-2222-05	50V 2200pF	R 205	117-1241-10	1/10W 120k Ω
C 201	178-1022-05	50V 1000pF	CN 101	074-1115-11		R 206	117-1241-10	1/10W 120k Ω
C 202	178-1022-05	50V 1000pF	CN 102	076-9000-10		R 207	117-4721-10	1/10W 4.7k Ω
C 203	042-9002-04	50V 1 μ F	CN 103	076-9000-08		R 208	117-4721-10	1/10W 4.7k Ω
C 204	042-9002-04	50V 1 μ F	CN 104	076-9000-05		R 401	117-2221-10	1/10W 2.2k Ω
C 205	184-1073-22	10V 100 μ F	CN 105	076-9000-03		R 402	117-1231-10	1/10W 12k Ω
C 206	184-1073-22	10V 100 μ F	D 101	001-0330-00	1SS119	R 403	117-6821-10	1/10W 6.8k Ω
C 207	178-2732-05	25V 0.027 μ F	D 102	001-0346-69	MTZ 18JB	R 404	117-6821-10	1/10W 6.8k Ω
C 208	178-2732-05	25V 0.027 μ F	D 103	001-0346-69	MTZ 18JB	R 405	117-1231-10	1/10W 12k Ω
C 401	182-2253-63	50V 2.2 μ F	D 104	001-0330-00	1SS119	R 406	117-2221-10	1/10W 2.2k Ω
C 402	182-1053-63	50V 1 μ F	D 601	001-0346-33	MTZ 5.6 JC	R 407	117-6831-10	1/10W 68k Ω
C 403	182-1053-63	50V 1 μ F	D 602	001-0330-00	1SS119	R 408	117-6821-10	1/10W 6.8k Ω
C 404	182-2253-63	50V 2.2 μ F	D 603	001-0330-00	1SS119	R 409	117-4731-10	1/10W 47k Ω
C 405	182-4753-63	50V 4.7 μ F	D 604	001-0330-00	1SS119	R 410	111-4721-91	1/4WSS 4.7k Ω
C 406	176-1511-00	50V 150pF CH	D 605	001-0330-00	1SS119	R 411	111-4721-91	1/4WSS 4.7k Ω
C 407	176-5601-00	50V 56pF	D 606	001-0330-00	1SS119	R 412	117-4731-10	1/10W 47k Ω
C 408	178-8232-05	25V 0.082 μ F	D 607	001-0330-00	1SS119	R 413	117-6831-10	1/10W 68k Ω
C 409	182-2253-63	50V 2.2 μ F	D 608	001-0330-00	1SS119	R 414	117-6821-10	1/10W 6.8k Ω
C 410	182-2263-33	16V 22 μ F	D 701	001-0188-01	1SS1885A	R 501	111-1221-91	1/4WSS 1.2k Ω
C 411	178-5632-05	25V 0.056 μ F	D 702	001-0346-46	MTZ 9.1 JA	R 502	111-4721-91	1/4WSS 4.7k Ω
C 412	178-5622-05	50V 5600pF	D 703	001-0346-48	MTZ 9.1 JC	R 503	111-4721-91	1/4WSS 4.7k Ω
C 413	178-5622-05	50V 5600pF	D 704	001-0330-00	1SS119	R 504	111-4721-91	1/4WSS 4.7k Ω
C 414	182-1063-33	16V 10 μ F	D 705	001-0330-00	1SS119	R 505	111-4721-91	1/4WSS 4.7k Ω
C 415	182-4763-33	16V 47 μ F	D 706	001-0330-00	1SS119	R 601	111-1531-91	1/4WSS 15k Ω
C 416	182-4763-33	16V 47 μ F	D 707	001-0330-00	1SS119	R 602	117-4721-10	1/10W 4.7k Ω
C 417	182-1063-33	16V 10 μ F	IC 201	051-0272-00	LA3161	R 603	111-4721-91	1/4WSS 4.7k Ω
C 418	178-5622-05	50V 5600pF	IC 401	051-5008-00	M62419FP	R 604	111-2231-91	1/4WSS 22k Ω
C 419	178-5622-05	50V 5600pF	IC 501	051-2009-00	TDA8561Q	R 605	111-4731-91	1/4WSS 47k Ω
C 420	178-5632-05	25V 0.056 μ F	IC 502	051-2009-00	TDA8561Q	R 606	117-2231-10	1/10W 10k Ω
C 421	182-2263-33	16V 22 μ F	IC 601	052-1909-00	LC72323A-9281	R 607	111-2231-91	1/4WSS 22k Ω
C 422	182-2253-63	50V 2.2 μ F	L 101	010-9000-05	5.6 μ H	R 608	111-4731-91	1/4WSS 47k Ω
C 423	178-8232-05	25V 0.082 μ F	L 102	010-9009-50	0.15 μ H	R 609	111-2231-91	1/4WSS 22k Ω
C 424	176-5601-00	50V 56pF	L 103	010-9000-05	5.6 μ H	R 610	111-1031-91	1/4WSS 10k Ω
C 425	176-1511-00	50V 150pF CH	L 104	010-9009-01	2.2 μ H	R 611	111-1031-91	1/4WSS 10k Ω
C 426	182-4753-63	50V 4.7 μ F	L 601	010-9000-02	220 μ H	R 612	111-6831-91	1/4WSS 68k Ω
C 427	178-4732-05	25V 0.047 μ F	L 701	009-9006-50		R 613	117-1031-10	1/10W 10k Ω
C 501	171-2233-06	25V 0.022 μ F	L 702	010-9000-01	120 μ H	R 614	117-2231-10	1/10W 22k Ω
C 502	181-4743-62	50V 0.47 μ F	PL 101	017-9001-01	8V68mA	R 615	117-2231-10	1/10W 22k Ω
C 503	181-4743-62	50V 0.47 μ F	PL 102	017-9001-01	8V68mA	R 616	117-1031-10	1/10W 10k Ω
C 504	181-4743-62	50V 0.47 μ F	Q 601	193-1858-00	2SD1858	R 617	117-1031-10	1/10W 10k Ω
C 505	181-4743-62	50V 0.47 μ F	Q 602	125-0003-02	RN 2202	R 618	117-1031-10	1/10W 10k Ω
C 506	173-1042-10	50V 0.1 μ F	Q 701	193-1858-00	2SD1858	R 619	117-1031-10	1/10W 10k Ω
C 507	042-0447-00	16V 2200 μ F	Q 702	193-1858-00	2SD1858	R 701	111-1021-91	1/4WSS 1k Ω
C 508	178-1022-05	50V 1000pF	Q 703	125-2003-02	RN1202	R 702	111-4711-81	1/2WSS 470 Ω
C 601	180-1063-53	35V 10 μ F	Q 703	191-1243-00	2SB1243	R 703	111-2791-91	1/4WSS 2.7 Ω
C 602	184-2273-22	10V 220 μ F	Q 704	125-2003-02	RN1202	R 704	111-2791-91	1/4WSS 2.7 Ω
C 603	178-1022-05	50V 1000pF	Q 705	193-1858-00	2SD1858	R 705	111-2221-91	1/4WSS 2.2k Ω
C 604	178-1022-05	50V 1000pF	Q 706	193-1858-00	2SD1858	R 706	111-4721-91	1/4WSS 4.7k Ω
C 605	176-3301-00	50V 33pF CH	Q 707	125-2003-02	RN1202	R 707	111-3331-91	1/4WSS 33k Ω
C 606	176-3301-00	50V 33pF CH	Q 708	102-2458-00	2SC2458	R 708	111-1031-91	1/4WSS 10k Ω
C 607	182-4763-33	16V 47 μ F	Q 709	100-1548-00	2SA1548	R 709	111-2221-91	1/4WSS 2.2k Ω
C 608	171-1032-06	50V 0.01 μ F	Q 710	100-1548-00	2SA1548	R 710	111-4711-81	1/2WSS 470 Ω
C 609	176-1011-00	50V 100pF CH	Q 711	102-2458-28	2SC2458 GR	R 711	111-1091-91	1/4WSS 1 Ω
C 610	176-1011-00	50V 100pF CH	Q 712	102-2458-28	2SC2458 GR	R 712	111-1091-91	1/4WSS 1 Ω
C 611	182-1053-63	50V 1 μ F	Q 714	100-1048-00	2SA1048	R 713	111-1021-91	1/4WSS 1k Ω
C 612	160-1012-05	50V 100pF	Q 715	125-2003-02	RN1202	R 714	111-2231-91	1/4WSS 22k Ω
C 613	160-1012-05	50V 100pF	Q 716	125-2003-02	RN1202	R 715	111-1031-91	1/4WSS 10k Ω
C 614	178-1032-05	50V 0.01 μ F	Q 717	102-2458-00	2SC2458	R 716	111-1031-91	1/4WSS 10k Ω

REF No.	PART No.	DESCRIPTION
R 717	111-2221-91	1/4WSS 2.2kΩ
R 718	111-1031-91	1/4WSS 10kΩ
R 719	111-2221-91	1/4WSS 2.2kΩ
R 720	111-1021-91	1/4WSS 1kΩ
R 721	117-1021-10	1/10W 1kΩ
R 722	111-4721-91	1/4WSS 4.7kΩ
R 723	111-1591-91	1/4WSS 1.5Ω

REF No.	PART No.	DESCRIPTION
R 724	111-1591-91	1/4WSS 1.5Ω
R 725	111-1591-91	1/4WSS 1.5Ω
R 726	111-1591-91	1/4WSS 1.5Ω
R 727	111-1031-91	1/4WSS 10kΩ
R 728	111-2221-91	1/4WSS 2.2kΩ
R 729	111-1031-91	1/4WSS 10kΩ
R 730	111-1031-91	1/4WSS 10kΩ

REF No.	PART No.	DESCRIPTION
R 731	111-4711-81	1/2WSS 470Ω
R 732	111-1031-91	1/4WSS 10kΩ
R 733	111-1031-91	1/4WSS 10kΩ
R 734	111-2221-91	1/4WSS 2.2kΩ
X 701	061-9000-50	4.5MHz

Switch PWB

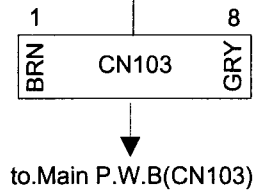
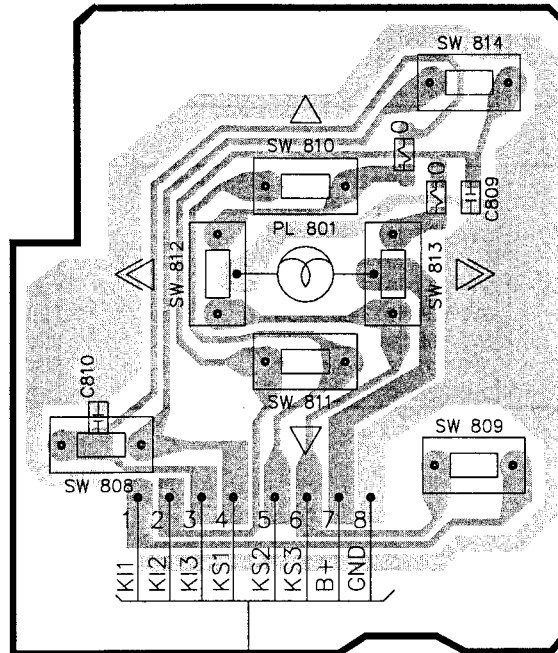
REF No.	PART No.	DESCRIPTION
C 806	176-3311-00	50V 330pF
C 807	176-3311-00	50V 330pF
C 809	176-3311-00	50V 330pF
C 810	176-3311-00	50V 330pF
CN 101	854-4236-00	
CN 102	854-4235-00	
PL 801	017-0410-00	14V 40mA
PL 802	017-0410-00	14V 40mA

REF No.	PART No.	DESCRIPTION
PL 803	017-0410-00	14V 40mA
SW 802	013-6002-50	
SW 803	013-6002-50	
SW 804	013-6002-50	
SW 805	013-6002-50	
SW 806	013-6002-50	
SW 807	013-6002-50	
SW 808	013-3812-11	

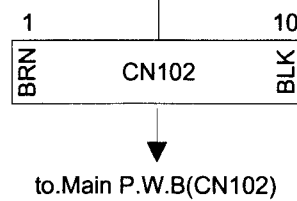
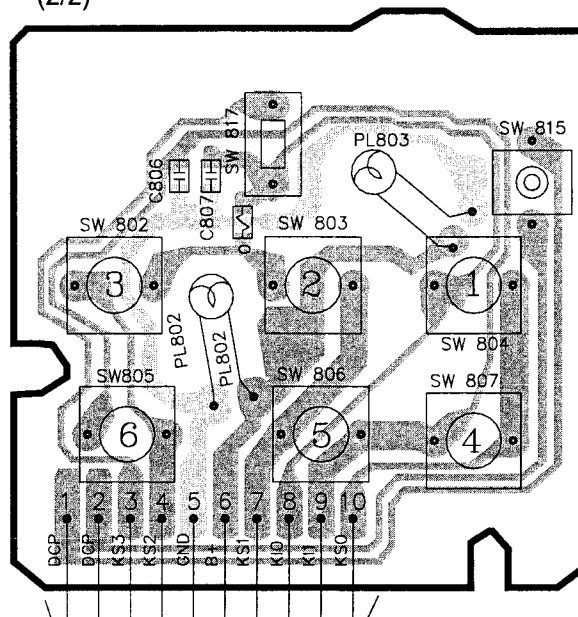
REF No.	PART No.	DESCRIPTION
SW 809	013-3812-11	
SW 810	013-3812-11	
SW 811	013-3812-11	
SW 812	013-3812-11	
SW 813	013-3812-11	
SW 814	013-3812-11	
SW 815	013-7000-01	
SW 817	013-3812-11	

■ PRINTED WIRING BOARD
Switch P.W.B section

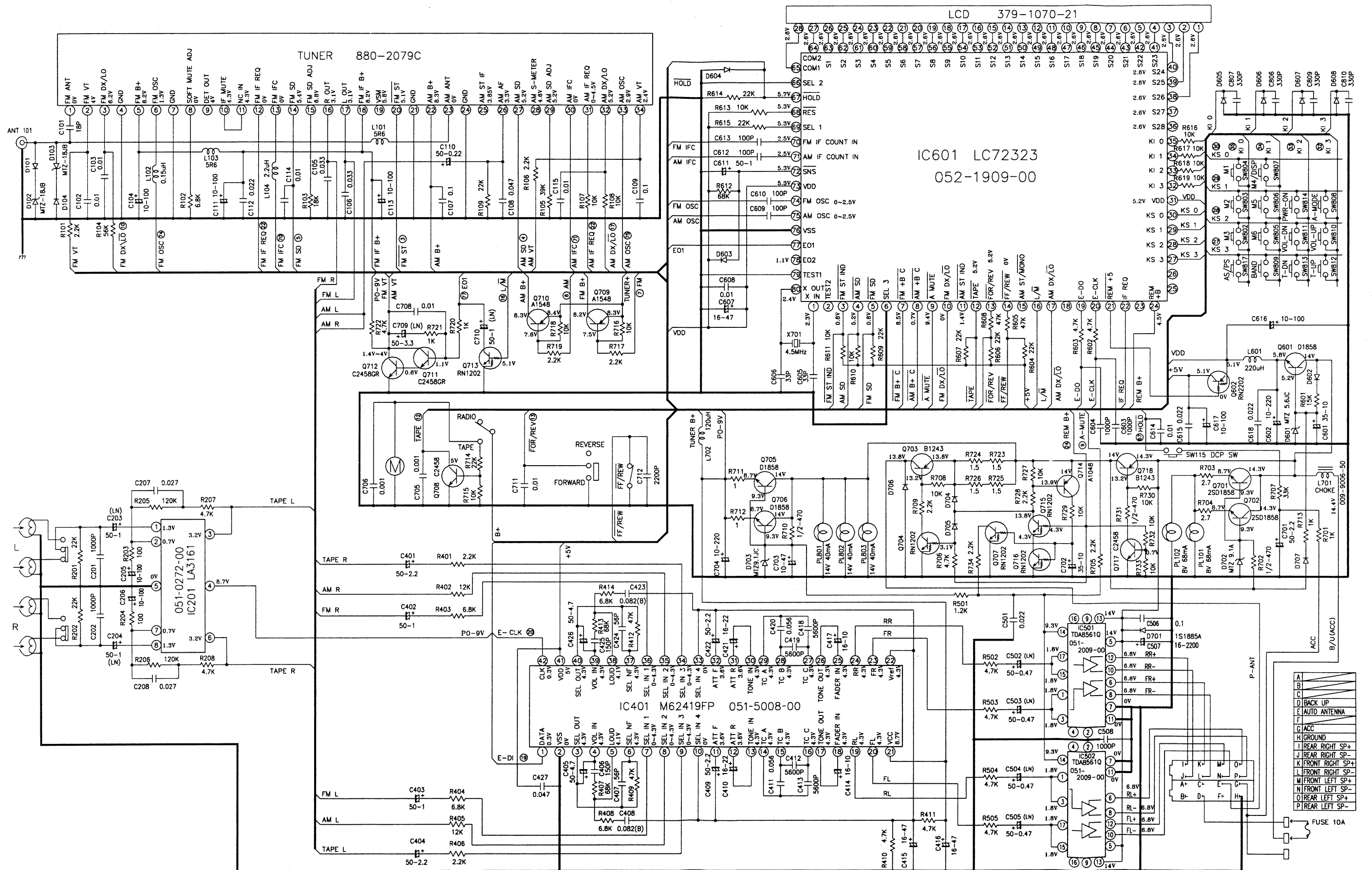
Switch P.W.B(1/2)



Switch P.W.B(DCP)
(2/2)



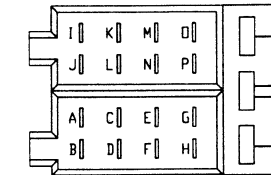
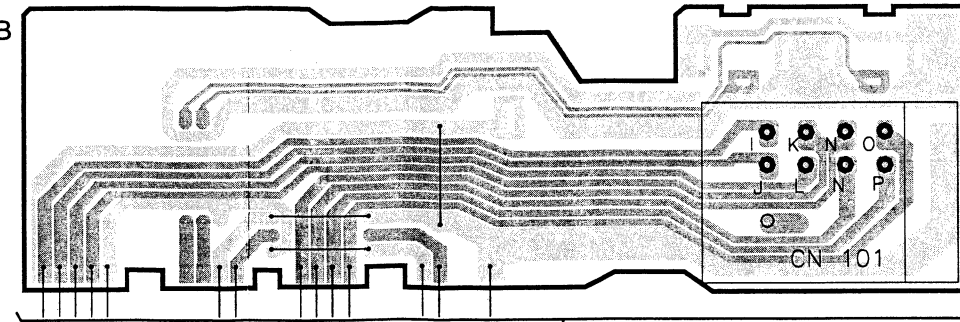
CIRCUIT DIAGRAM Main/Switch/Connector Circuit Section



PRINTED WIRING BOARD
Main/Connector P.W.B Section

Connector P.W.B

ISO 16P CONNECTOR



Position of fuse(10A)
for VW and Audi vehicles
for Other vehicles

A	
B	
C	
D	B/U
E	AUTO ANT
F	
G	ACC(B/U)
H	GROUND
I	RR ⊕
J	RR ⊕
K	FR ⊕
L	FR ⊕
M	FL ⊕
N	FL ⊕
O	RL ⊕
P	RL ⊕

Q IC
501 502

717 707
716
715

718

714
705 201

706

703 704 401

709

601

710

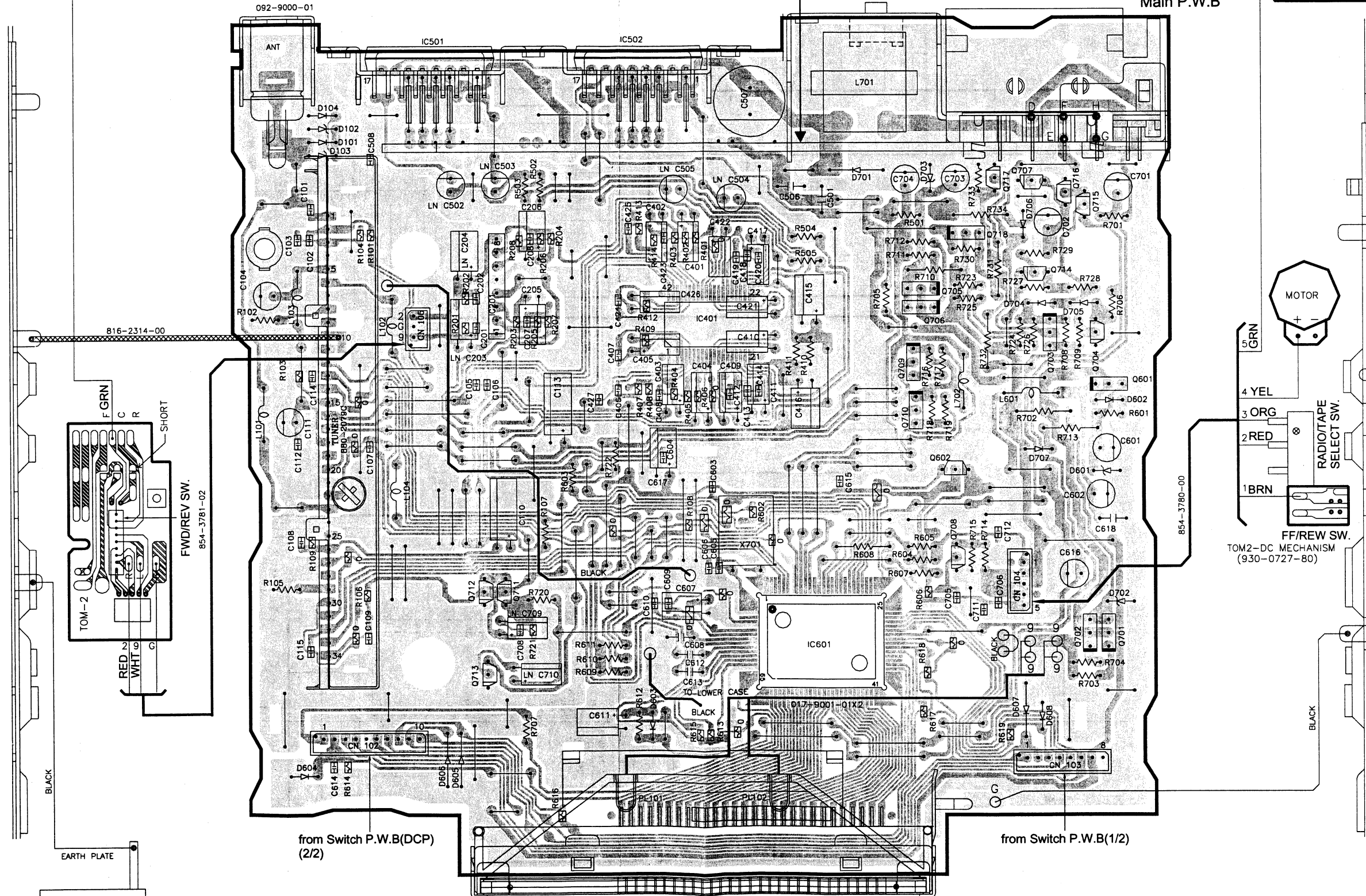
602

708

712 711

701 702 601

713



EARTH PLATE

from Switch P.W.B(DCP)
(2/2)

from Switch P.W.B(1/2)